

No.

9600159



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*NSU Research Foundation*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE REQUIREMENTS OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Council'

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifth day of February, in the year of our Lord two thousand one.*

Attest:

*Alvin R. Post*

Acting Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*[Signature]*

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act 1974 (5 U.S.C. 552a).

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER		3. VARIETY NAME	
NDSU Research Foundation		ND88-597		'COUNCIL'	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)		5. TELEPHONE (include area code)		FOR OFFICIAL USE ONLY	
c/o Executive Director P.O. Box 5014 Fargo, ND 58105-5014		701-231-8931		PVPO NUMBER 9600159	
		6. FAX (include area code)		F I L I N G I N F O	
		701-231-1013		DATE 3-19-96	
7. GENUS AND SPECIES NAME		8. FAMILY NAME (Botanical)		FILING AND EXAMINATION FEE	
Glycine max		Leguminosae		2450.00	
9. CROP KIND NAME (Common name)				DATE 3-13-96	
Soybean				CERTIFICATION FEE	
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name)				320	
NDSU Research Foundation-501(C)3 Corporation				DATE 10/23/02	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION			
North Dakota		May 1989			
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS				14. TELEPHONE (include area code)	
Theodore C. Helms Department of Plant Sciences North Dakota State University P.O. Box 5051 Fargo, ND 58105				701-231-8136	
Dale Zetocha Executive Director NDSU Research Foundation P.O. Box 5014 Fargo, ND 58105-5014				15. FAX (include area code)	
				701-231-8474	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)					
<input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety <input type="checkbox"/> Exhibit D. Additional Description of the Variety <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership <input checked="" type="checkbox"/> Voucher Sample (2,600 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository) <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,460), made payable to "Treasurer of the United States" (Mail to PVPO)					
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)?					
<input checked="" type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input type="checkbox"/> NO (If "no," go to item 20)					
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?			19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			<input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?					
<input checked="" type="checkbox"/> YES (If "yes," give names of countries and dates) <input type="checkbox"/> NO					
USA-Release date <del>December 16, 1994</del> January 2, 1996					
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.					
The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.					
Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s))			SIGNATURE OF APPLICANT (Owner(s))		
Dale Zetocha					
NAME (Please print or type)			NAME (Please print or type)		
Dale Zetocha					
CAPACITY OR TITLE		DATE		CAPACITY OR TITLE	
Executive Director		3/11/96			
NDSU Research Foundation					



**EXHIBIT A**

## Origin and Breeding History of the Variety COUNCIL

Council, tested as ND no., 88-597, was derived from the cross Ozzie/Dawson, made in 1986. Ozzie and Dawson were developed and released as cultivars by the University of Minnesota, St. Paul, MN. The F<sub>1</sub> plant was grown in the winter of 1987 in the greenhouse and the F<sub>2</sub> seed was grown in the summer of 1987 at Fargo, ND. The population was advanced by picking one pod from each F<sub>2</sub> plant and this F<sub>3</sub> seed was grown in Chile, S.A. in the winter of 1987-1988. Individual F<sub>3:4</sub> plants were threshed in Chile and the F<sub>3:4</sub> plant-rows were evaluated in the summer of 1988 in North Dakota. ND88-597 was first tested in replicated yield tests in 1989. In 1992-1994, ND88-597 was evaluated in the Uniform Regional Tests: Northern States as a Maturity Group 0 experimental line. Individual F<sub>3:7</sub> plants were threshed in 1991 and 76 single plant selections were evaluated for uniformity in the summer of 1992 in Fargo, ND. These 76 purification rows were individually harvested and bulked after evaluation of hilum color, plant maturity, flower color, plant height, pubescence color, seed coat color, and pod color. Breeder seed of ND88-597 was increased in the summer of 1993. In the summer of 1994 the foundation seed of ND88-597 was increased



at Casselton, ND. Council was released in 1994 as an F<sub>11</sub> generation pure line soybean cultivar and is uniform and stable within commercially acceptable limits. As is true with other soybean cultivars, a small percentage of offtypes can occur within commercially acceptable limits for almost any characteristic during the course of repeated multiplication.



**EXHIBIT B**

## Novelty Statement

1. Council was developed primarily for increased yield and suitable maturity for North Dakota. Council is morphologically similar to both parents and has the same flower color, pubescence color, pod color, hilum color, and seed coat color as both parents. However, differences exist between certain high molecular weight proteins of Council compared to the parental lines Dawson and Ozzie in electrophoresis isozyme gels. Photographs of isozyme gels labelled Photo#1 and Photo#2, are submitted as attachments to this application.
  - a. PHOTO #1 - Council has an alcohol dehydrogenase isozyme banding pattern which is different than Dawson.
  - b. PHOTO #2 - Council shows a pattern in the silver stain of general protein which is different from Ozzie.
2. Council matures two days later than Ozzie.



Locus	Dawson	Ozzie	New Line ('Council')
Satt009	220	220	220
Satt038	166		166
Satt114	121	121	121
Satt147	177	177	177
Satt177	113	113	113
Satt191	209	209	209
Satt242	162	162	147
Satt243	269	269	269
Satt294	267	267	267
Satt308	174	174	171
Satt373	155	101	125
Satt414	301	304	304/307
Satt534	251	260	260



Project 358(1) Data

[illegible]



U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
~~LIVESTOCK, MEAT, AND POULTRY~~ DIVISION  
 PLANT VARIETY PROTECTION OFFICE  
 BELTSVILLE, MARYLAND 20705

EXHIBIT  
 (Soybean)

OBJECTIVE DESCRIPTION OF VARIETY  
 SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) NDSU Research Foundation North Dakota Agricultural Exp Sta (NDAES)	TEMPORARY DESIGNATION ND88-597	VARIETY NAME Council
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) PO Box 5014 Fargo, ND 58105-5014		FOR OFFICIAL USE ONLY PVPO NUMBER 9600159

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,  ). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

## 1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)  
 3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)  
 4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

## ★ 2. SEED COAT COLOR: (Mature Seed)

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) \_\_\_\_\_

## 3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

## ★ 4. SEED SIZE: (Mature Seed)

 

Grams per 100 seeds

## ★ 5. HILUM COLOR: (Mature Seed)

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) \_\_\_\_\_

## ★ 6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow

2 = Green

## ★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low

2 = High

## ★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP1<sup>a</sup>)2 = Type B (SP1<sup>b</sup>)

## ★ 9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

## ★ 10. LEAFLET SHAPE:

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) \_\_\_\_\_



## 11. LEAFLET SIZE:

☐ 21 = Small ('Amsoy 71'; 'A5312')  
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

9600159

## 12. LEAF COLOR:

☐ 21 = Light Green ('Weber'; 'York')  
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

## ★ 13. FLOWER COLOR:

☐ 2

1 = White

2 = Purple

3 = White with purple throat

## ★ 14. POD COLOR:

☐ 2

1 = Tan

2 = Brown

3 = Black

## ★ 15. PLANT PUBESCENCE COLOR:

☐ 1

1 = Gray

2 = Brown (Tawny)

## 16. PLANT TYPES:

☐ 21 = Slender ('Essex'; 'Amsoy 71')  
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

## ★ 17. PLANT HABIT:

☐ 3

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

## ★ 18. MATURITY GROUP:

☐ 3

1 = 000

2 = 00

3 = 0

4 = I

5 = II

6 = III

7 = IV

8 = V

9 = VI

10 = VII

11 = VIII

12 = IX

13 = X

## ★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

## BACTERIAL DISEASES:

★

☐ 0Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

★

☐ 0Bacterial Blight (*Pseudomonas glycinea*)

★

☐ 0Wildfire (*Pseudomonas tabaci*)

## FUNGAL DISEASES:

★

☐ 0Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojina*)

★

☐ 0

Race 1

☐

Race 2

☐

Race 3

☐

Race 4

☐

Race 5

☐

Other (Specify)

☐ 0Target Spot (*Corynespora cassicola*)☐ 0Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☐ 0Powdery Mildew (*Microsphaera diffusa*)

★

☐ 0Brown Stem Rot (*Cephalosporium gregatum*)☐ 0Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)



19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

9600159

- ★ ☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var; *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☐ 1 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☐ 2 Race 1 ☐ 2 Race 2 ☐ 1 Race 3 ☐ 1 Race 4 ☐ 1 Race 5 ☐ 1 Race 6 ☐ 1 Race 7
- ☐ 1 Race 8 ☐ 1 Race 9 ☐ 1 Other (Specify) \_\_\_\_\_

VIRAL DISEASES:

- ☐ 0 Bud Blight (Tobacco Ringspot Virus)
- ☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☐ 0 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☐ 0 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☐ 1 Race 1 ☐ 1 Race 2 ☐ 1 Race 3 ☐ 1 Race 4 ☐ 1 Other (Specify) \_\_\_\_\_
- ☐ 0 Lance Nematode (*Hoplolaimus Colombus*)
- ★ ☐ 0 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ 0 OTHER DISEASE NOT ON FORM (Specify): \_\_\_\_\_

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☐ 2 Iron Chlorosis on Calcareous Soil
- ☐ 0 Other (Specify) \_\_\_\_\_

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☐ 0 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 0 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ 0 Other (Specify) \_\_\_\_\_

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Ozzie	Seed Coat Luster	Ozzie
Leaf Shape	Ozzie	Seed Size	Ozzie
Leaf Color	Ozzie	Seed Shape	Ozzie
Leaf Size	Ozzie	Seedling Pigmentation	Ozzie



## 23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

9600159

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
Council Submitted	131	1.4	86	7.62	11.61	37.0	20.8	15.4	2.4
Ozzie Name of Similar Variety	129	1.5	86	7.8	12.16	35.6	21.4	15.7	2.6

## PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A<sub>2</sub> in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.



**EXHIBIT E**

## Statement of the basis of applicant's ownership

Dr. Theodore Helms, an employee of the North Dakota Agricultural Experiment Station and North Dakota State University, is the plant breeder who developed 'COUNCIL', the soybean cultivar for which Plant Variety Protection is hereby sought. The employee by agreement and because of the condition of the use of the facilities and funds of the North Dakota Agricultural Experiment Station and North Dakota State University has assigned all ownership rights to 'COUNCIL' soybean to the North Dakota Agricultural Experiment Station and North Dakota State University.

North Dakota State University on behalf of the North Dakota Agricultural Experiment Station has assigned all ownership to the NDSU Research Foundation. The NDSU Research Foundation is a nonprofit corporation set up to own and manage the intellectual property of North Dakota State University.